

1-1-1 COURSE TITLE

MAINTENANCE COURSE

FOR

**3KW, TACTICAL QUIET GENERATOR SET
MEP 831A (60 HZ) AND MEP 832A (400 HZ)**

1-1-2 COURSE OBJECTIVE

UPON SUCCESSFUL COMPLETION OF THIS COURSE, THE TRAINEE WILL HAVE SUFFICIENT KNOWLEDGE TO OPERATE AND PERFORM UNIT AND DIRECT SUPPORT MAINTENANCE ON THE 3KW TACTICAL QUIET GENERATOR SET AND DIESEL ENGINE.

THE TRAINEE WILL BE ABLE TO:

IDENTIFY AND DESCRIBE GENERATOR SET SYSTEM AND COMPONENTS

DESCRIBE THE FUNCTION AND LOCATION OF ELECTRIC, FUEL, OIL, AND COOLING SYSTEM COMPONENTS

PERFORM PMCS PROCEDURES ON THE GENERATOR SET

PERFORM STARTUP AND SHUTDOWN OF THE GENERATOR SET IN USUAL AND UNUSUAL CONDITIONS

PERFORM UNIT AND DIRECT SUPPORT LEVEL TROUBLESHOOTING OF THE GENERATOR SET AND DIESEL ENGINE

PERFORM CORRECTIVE MAINTENANCE OF THE GENERATOR SET AND DIESEL ENGINE AT THE UNIT AND DIRECT SUPPORT LEVELS

1-2-1

GENERATOR SET DESCRIPTION



Size

Features

1-2-2

BASIC COMPONENTS



Skid Base

Enclosure

Engine

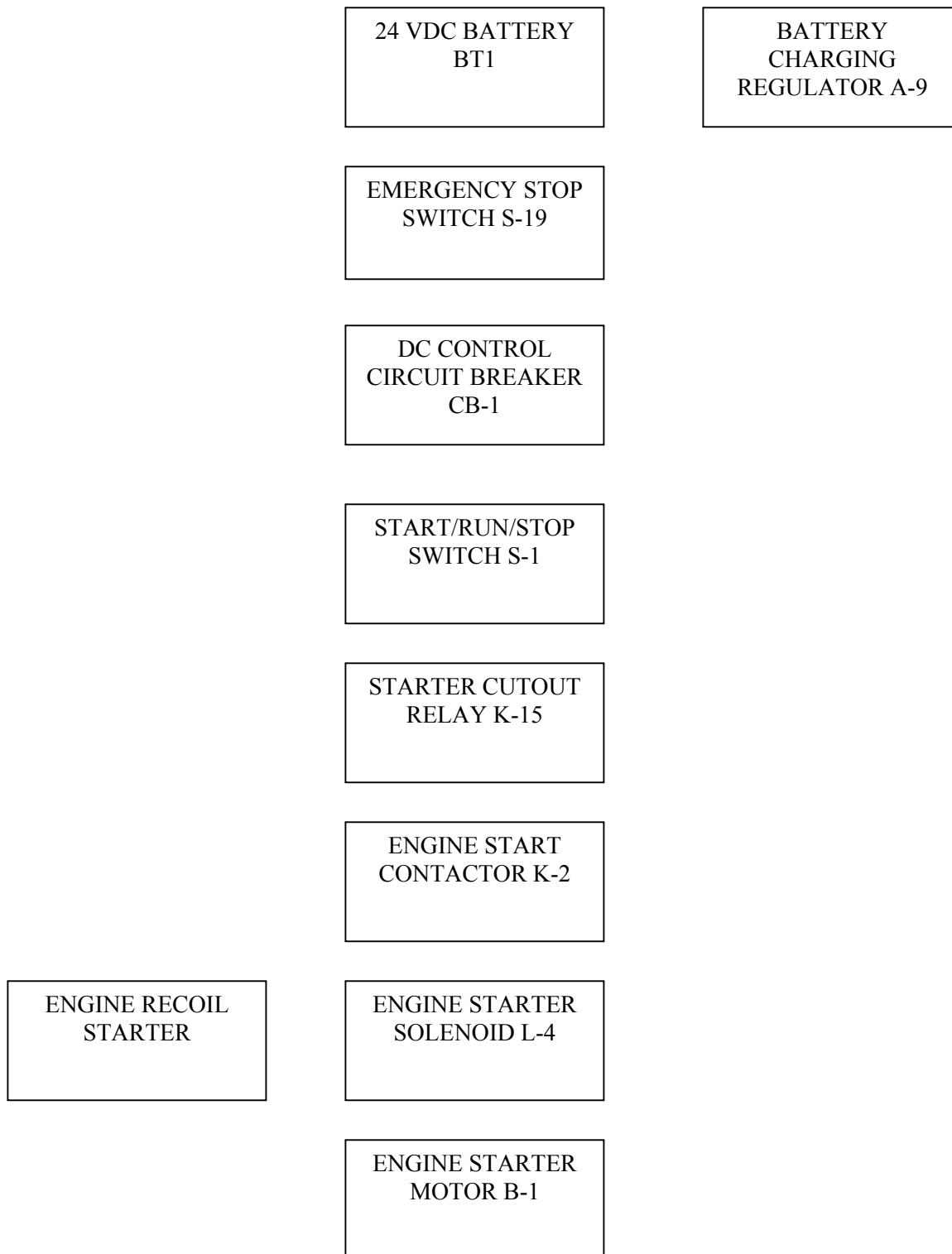
Permanent Magnet Generator

Control Box Assembly

Output Terminals

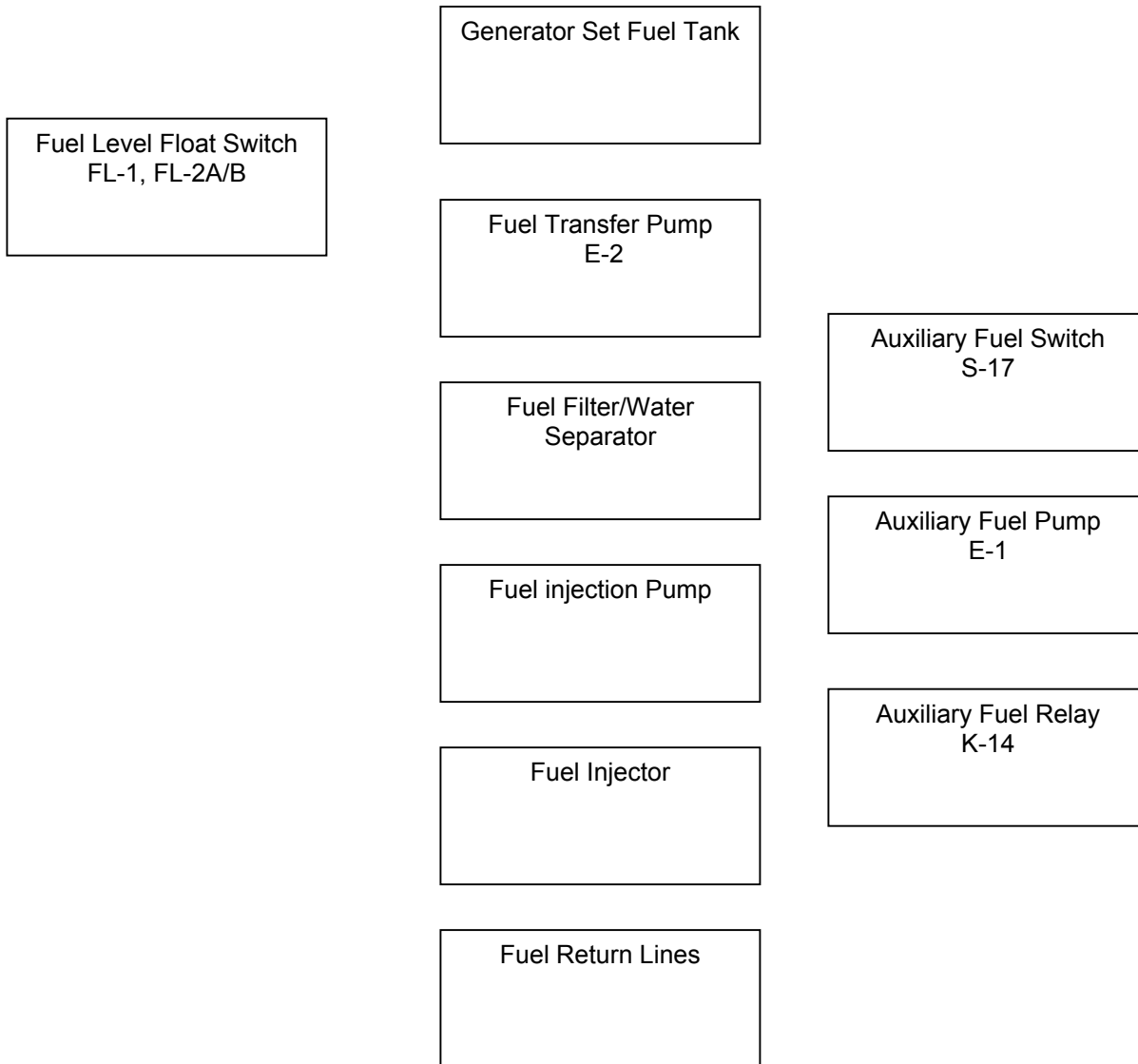
1-2-3

GENERATOR SET STARTING SYSTEM



1-2-4

FUEL SYSTEM



1-2-5

GENERATOR SET COOLING SYSTEM

AC Cooling Fans 60 Hz
B-2/3

DC Cooling Fans 400 Hz
B-2/3

Engine Flywheel Fan

1-2-6

ENGINE LUBRICATION SYSTEM

Crankshaft Driven Oil Pump

Crankcase Oil Sump

Oil Filter System

Low Oil Pressure Switch
OP

High Temperature Switch
HT

1-2-7

AIR INTAKE AND EXHAUST SYSTEM

Air Cleaner Assembly

Exhaust Tube

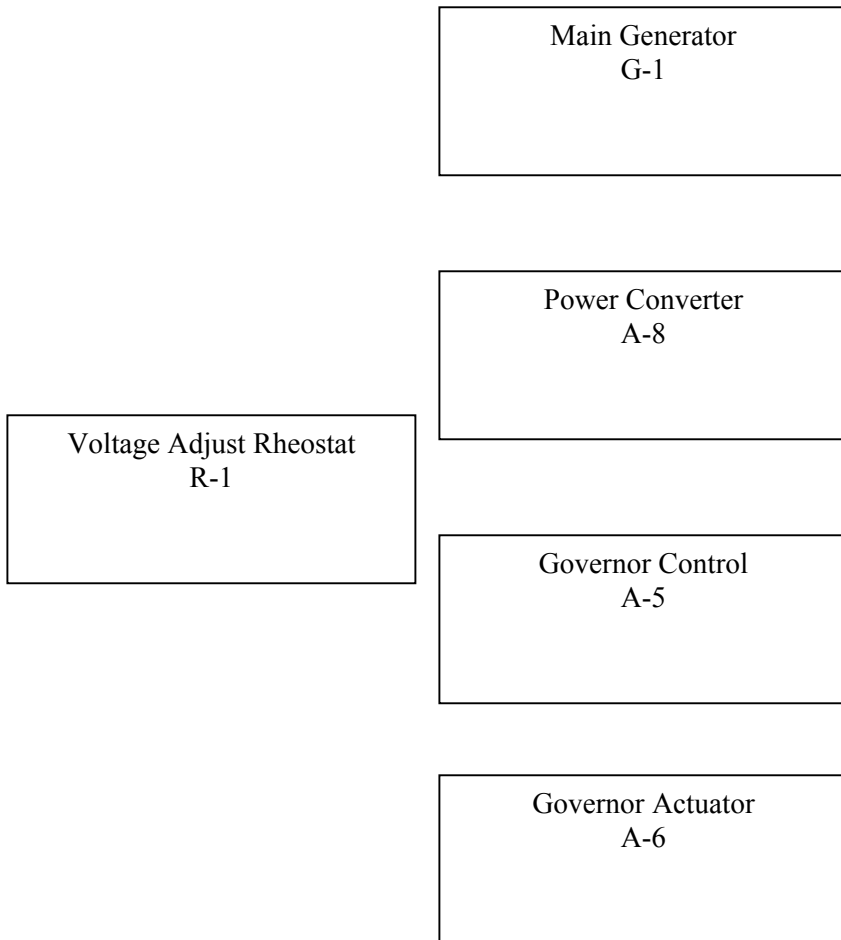
Engine Pre-Heat System
Switch S-18

Engine Pre-Heat Contactor
K-13

Air Heaters H-1/2

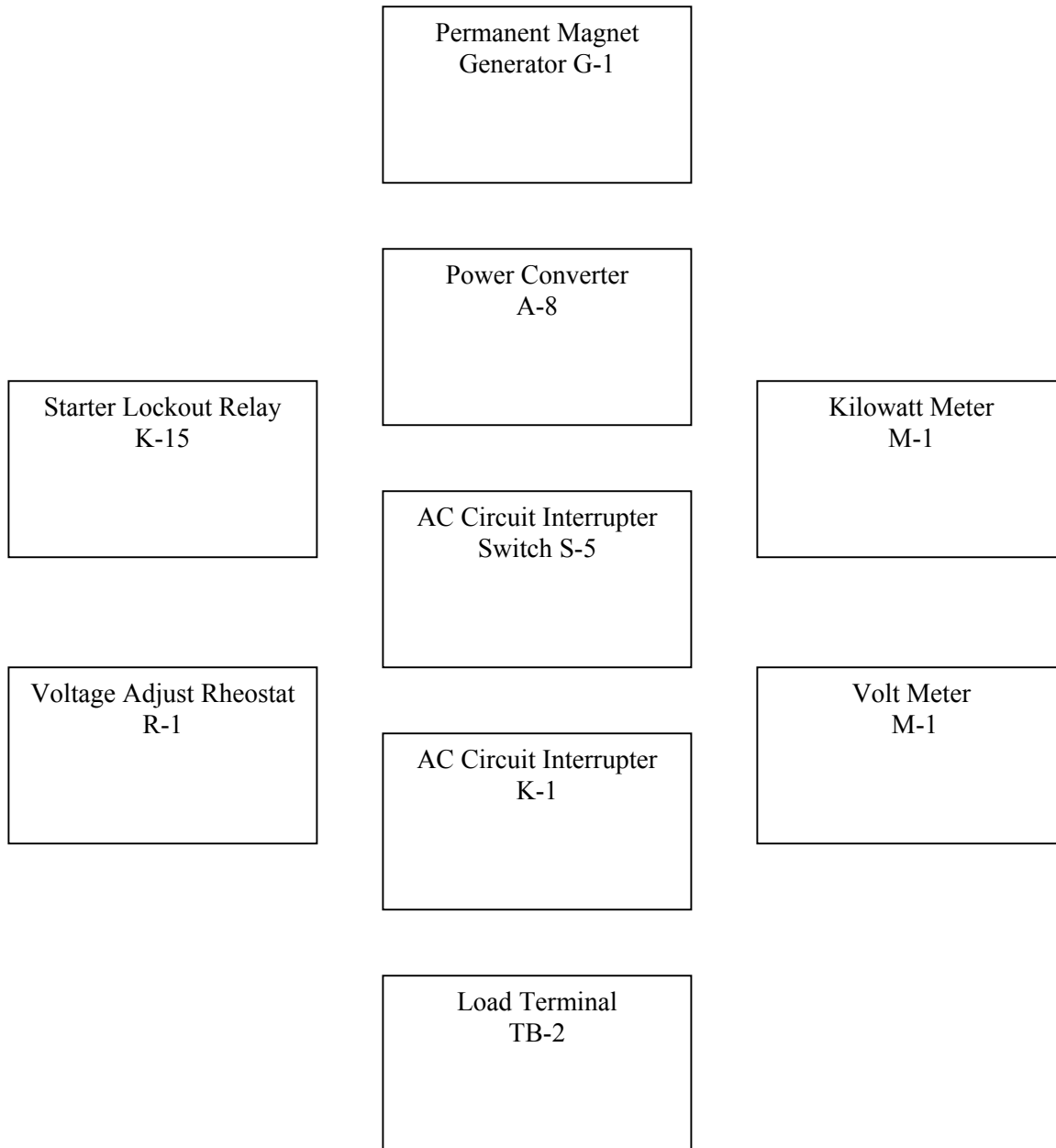
1-2-8

GOVERNOR CONTROL SYSTEM



1-2-9

AC ELECTRICAL SYSTEM



1-2-10

DC ELECTRICAL SYSTEM

24 VDC Battery
BT1

Battery Charging
Regulator
A-9

Start/Run/Stop Switch
S-1

Protective Devices:

High Temperature Switch HT

Low Oil Pressure switch OP

Fault Lockout Relay K-12

Over Voltage Relay K-3

Short Circuit Relay K-6

Overload Short Circuit Relay K-8

Ground Fault Circuit Interrupter CB3